

2003 COMMISSIONER'S AWARD FOR EXCELLENCE



Hampton Roads Third Crossing Geotechnical Database Team

*Innovation & Quality
Improvement*

Central Office

Team Members

Edward Hoppe, Ph.D., Thomas Pelnik, III, P.E., Stephen Barbie,
James Hopkins, Daniel Widner, David Timberline

Not shown: Andy Babish

With admirable foresight, this team developed a Web-enabled geographic information system (GIS) tool that will help save time and money in planning, engineering, and construction of the Hampton Roads Third Crossing project. The tool, an application on VDOT's server, will provide a quick and effective means of storing and accessing both historic and new geotechnical data.

With this application, engineers can use historic and new subsurface information for the design and construction of the planned road, bridge, and tunnel. They will also be able to efficiently plan future soil explorations in the deep channel of the crossing, which can cost as much as \$10,000 per day. During construction, the data will be used to compute pile lengths for new structures, design safe slopes for new embankments, and aid in right of way acquisitions. The new tool resulted from cooperation by several VDOT divisions and the Research Council, Old Dominion University, and the Army Corps of Engineers.

The application offers geotechnical information at a glance and geotechnical profiles in less than a minute. It represents the cutting edge of technology and establishes a new level of best practices for future VDOT projects. The Geotechnical Database Team's initiative and innovation will lead to confident decisions by engineers, positive outcomes for projects, and a leadership position in technology for VDOT.

Nominated by: Stanley L. Hite, P.E.

